

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for electromagnetically forming a metallic member comprising deforming an end of a metallic member which is substantially at room temperature by instantly inputting an electromagnetic energy for plastic deformation, pressing the outer surface of the deformed end on the surface of a mold to form a flange having a predetermined shape at the end of the metallic member and, at the same time, to work-harden the flange, wherein the electric energy input is 8 kJ or more and is sufficient to plastically deform the metallic member maintained at or near room temperature.

Claim 2 (Original): The method for electromagnetically forming a metallic member according to claim 1, wherein the flange is formed and work-hardened by only one time of electromagnetic forming of the metallic member at a normal temperature.

Claim 3 (Original): The method for electromagnetically forming a metallic member according to claim 1, wherein the metallic member has a tubular shape, and the end of the metallic member is deformed by inputting an electric energy to a coil inserted into the end of the metallic member to expand the end of the metallic member, and the outer surface of the expanded end is pressed on the mold surface to form a flange having a predetermined shape at the end of the metallic member.

Claim 4 (Currently Amended): The method for electromagnetically forming a metallic member according to claim ~~[[3]]~~ 1, wherein the ~~tubular~~ metallic member has a wall thickness of 3 mm or more, ~~and the electric energy input at one time of electromagnetic forming is 8 kJ or more.~~

Claim 5 (Original): The method for electromagnetically forming a metallic member according to claim 3, wherein the tubular metallic member is disposed and fixed horizontally during electromagnetic forming.

Claim 6 (Previously Presented): The method for electromagnetically forming a metallic member according to claim 3, wherein a widened portion is formed at a back of the flange of the metallic member, and then work-hardened.

Claim 7 (Original): The method for electromagnetically forming a metallic member according to claim 1, wherein the metallic member is composed of an aluminum alloy.

Claim 8 (Original): The method for electromagnetically forming a metallic member according to claim 1, wherein the outer surface of the flange has a shape conforming with the shape of the outer surface of another metallic member to be joined to the metallic member.

Claim 9 (Original): The method for electromagnetically forming a metallic member according to claim 1, wherein the mold has a curved surface so that the formed flange has a curved surface.

Claim 10 (Original): A metallic member formed by an electromagnetic forming method according to claim 1, wherein the flange is formed by expanding an end of the metallic member and then work-hardening the expanded end.

Claim 11 (Original): A metallic member formed by an electromagnetic forming method according to claim 1, wherein the metallic member has a tubular shape.

Claim 12 (Currently Amended): A method for electromagnetically forming a metallic member, comprising the steps of:

positioning a metallic member at substantially room temperature in a mold having a forming surface, such that an end of the metallic member is adjacent the forming surface; and  
inputting a single pulse of electromagnetic energy at the end of the metallic member, the pulse of electromagnetic energy being sufficient for plastic deformation of the metallic member to expand and press an outer surface of the end of the metallic member onto the forming surface of the mold, thereby to form a flange having a predetermined shape at the end of the metallic member and, at the same time, to work-harden the flange, wherein said single pulse of electromagnetic energy is at least 8 kJ and is sufficient to plastically deform the metallic member maintained at or near room temperature.

Claim 13 (New): A method for electromagnetically forming a metallic member comprising deforming an end of a metallic member by instantly inputting an electromagnetic energy for plastic deformation, pressing the outer surface of the deformed end on the surface of a mold to form a flange at the end of the metallic member, said flange having a shape conforming with the shape of the outer surface of another metallic member to be joined to the metallic member, at the same time, to work-harden the flange.

Claim 14 (New): A method for joining metallic members comprising:  
preparing a first metallic member;  
preparing a second metallic member;

deforming an end of said first metallic member by instantly inputting an electromagnetic energy for plastic deformation;

pressing the outer surface of the deformed end on the surface of a mold to form a flange at the end of the first metallic member, said flange having a shape conforming with the shape of the outer surface of the second metallic member where said first metallic member is to be joined and, at the same time, to work-harden the flange; and

joining said flange to the second metallic member so that the shape of said flange fits the shape of said second metallic member.

Claim 15 (New): The method for joining metallic members according to claim 14, wherein said first and second metallic members are tubes.